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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/341,085	07/02/1999	CAREL J.L. VAN DRIEL	PHN17.110	4715

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EXAMINER	
NGUYEN, THU HA T	
ART UNIT	**PAPER NUMBER**
2155	

DATE MAILED: 11/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/341,085	VAN DRIEL, CAREL J.L.	
	Examiner	Art Unit	
	Thu Ha T. Nguyen	2155	

-- The MAILING DATE of this communication appears on the c ver sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08/04/04* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 3-7* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 3-7* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. Claims **1, 3-7** are presented for examination.

Response to Arguments

2. In view of the Appeal Brief filed on August 04, 2004, PROSECUTION IS HEREBY REOPENED. The new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

Claim Objections

3. Claims 1, and 7 are objected to because of the following informalities:

In claim 1, recited the limitation "the network switch" page 2, line 6, is unclear and inconsistent with the claimed language. For purpose of examination, examiner assumes "*the network switch*" is "the non-dedicated network switch".

In claim 1, after the words "for transmitting downstream signals on one carrier frequency and are coupled to" applicant(s) is requested to delete "the" at line 15.

In claim 7, recited the limitation "the network control node", page 3, line 17, is unclear and inconsistent. For purpose of examination, examiner assumes "*the network control node*" is "the network control node router". Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1 and 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. In claim 1, recited the limitation "the network specific switching" lacks of positive antecedent basic. Where is "all of the network specific switching" referred? Where is "all of the network switching"? connected to the communication system? Likewise, claim 7 is rejected under 35 U.S.C. 112, second paragraph for the same limitation as in claim 1.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 2 and 7 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably

convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

9. In claim 1 recited the limitations "a terminal coupled to a sub-network", at lines 9-10, does not clearly teach or describe how "a terminal is coupled to a sub-network" is connected to a communication system. Does Applicant(s) mean "a terminal" as recited in this limitation the same as "a plurality of terminals" as recited limitation in at line 3? Where is "a sub-network" from? Does it the same as "a plurality of sub-networks coupled to the network control elements" as recited limitation at lines 16-17? If so, applicant(s) is required to make clear how those nodes and/or elements and/or terminals are connected/linked to a communication system.

10. In claim 1 recited the limitation "a network control node", at line 15, does not clearly describe and/or point out how "a network control node" is connected to a communication system. Does Applicant(s) mean "a network control node" is the same as "a network control switch" as recited at line 12? Appropriate correction is required to make clear where and how "a network control node" is connected to a communication system.

11. Likewise, in claim 7 recited the same limitation as claim 1 "a terminal coupled to a sub-network", at line 15, is required to make clear how those nodes and/or elements and/or terminals are connected/linked to a communication system as question in claim 1.

12. In claim 7 recited the limitation "a network control node router", at line 17, does not clearly describe and/or point out how "a network control node router" is connected to a communication system. Where does it come from? And what does it do or what is its capability?

13. Claim 7 recited the limitation "an access node router", at line 17, does not clearly describe how and what "an access node router" is doing for.

14. Appropriate correction is required to make the claimed language is clear and how to make and/or use the invention.

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

16. Claims 1, 3-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Hiekali** U.S. Patent No. **5,619,500**, and **Bronstein et al.,** (hereinafter Bronstein) U.S. Patent No. **5,910,954**, further in view of **Hoarty et al.,** (hereinafter Hoarty) U.S Patent No. **6,305,020**.

17. As to claim 1, **Hiekali** teaches the invention as claimed, including communication system comprising:

a plurality of terminals (figures 2, 4, element 205) which are connected to an access network (figure 2-3, col. 3 lines 3-25), the access network having,

an access node connected to a transmission network and a non-dedicated network switch using a signaling protocol, the network control elements include a network control switch and a plurality of channel cluster modules, the channel cluster modules are arranged for transmitting downstream signals on one carrier frequency and are coupled to the sub-network corresponding to the network control node (figures 3-5, 8-10, abstract, col. 2 lines 5-33, col. 3 lines 3-59, col. 14 lines 20-60).

However, **Hiekali** does not explicitly teach wherein the access node includes an access node switch couple to the network switch and a plurality of network control elements, the access node switch controls all of the network specific switching and the transmission network comprises a plurality of sub-networks coupled to the network control elements. **Bronstein** teaches wherein the access node includes an access node switch couple to the network switch and a plurality of network control elements, the access node switch controls all of the network specific switching (figures 1, 4-5, abstract, col. 2 lines 50-col. 4 lines 30), and wherein, the transmission network comprises a plurality of sub-networks coupled to the network control elements (figures 1, 4-5). It would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention was made to combine the teachings of **Hiekali and Bronstein** to have the access node includes an access node switch couple to the network switch

and a plurality of network control elements, the access node switch controls all of the network specific switching and the transmission network comprises a plurality of sub-networks coupled to the network control elements because it would have an efficient data communications network that has plurality of network switches that can control, manage and reconfigure the multiplexing of sub-network systems.

Hiekali does not explicitly teach the access node switch need not to know a carrier frequency allocated to a terminal coupled to a sub-network. **Hoarty** teaches the access node switch need not to know a carrier frequency allocated to a terminal coupled to a sub-network (figures 1, 3-5, col. 5, lines 44-col. 6, lines 25, col. 6, lines 52-col. 7, lines 56). It would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention was made to combine the teaching of **Hiekali and Hoarty** because it would have an efficient communication system that improves the control structure of the network, reduce overload and bandwidth problems of network operating conditions.

18. As to claim 3, **Hiekali** teaches the invention as claimed, wherein the channel cluster modules comprise at least one downstream channel module (figure 5, col. 3 lines 60-col. 5 lines 45, col. 6 lines 8-col. 7 lines 15).

19. As to claim 4, **Hiekali** teaches the invention as claimed, characterized in that the channel cluster module comprises an upstream channel module (figures 5-6, col. 3 lines 60-col. 5 lines 45, col. 6 lines 8-col. 7 lines 15).

20. As to claim 5, **Hiekali** teaches the invention as claimed, wherein the terminals comprise signaling means for exchanging network layer control information with the network switch (figure 4, abstract, col. 2 lines 5-33).

21. As to claim 6, **Hiekali** teaches the invention as claimed, wherein the network switch comprises proxy signaling means for deriving network layer control information from session layer and/or transport layer information exchanged between a terminal and the network switch (figure 4, abstract, col. 3 lines 60-col. 5 lines 45).

22. As to claim 7, **Hiekali** teaches the invention as claimed, including access node connectable to a transmission network, and to a non-dedicated network switch, the access node comprising:

an access node switch coupled to a plurality of network control elements, wherein the access node switch is connectable to the network switch and wherein the network control elements comprise a network control switch and a plurality of channel cluster modules, in that a network control node router is coupled to a access node router and to the channel cluster modules, and in that the channel cluster modules are connectable to a sub-network corresponding to the network control node (figures 2-4, abstract, col. 1 lines 32-col. 2 lines 33, col. 3 lines 3-59).

However, **Hiekali** does not explicitly teach the access node switch controls all of the network specific switching and the transmission network comprises a plurality of

sub-networks coupled to the network control elements. **Bronstein** teaches the access node switch controls all of the network specific switching (figures 1, 4-5, abstract, col. 2 lines 50-col. 4 lines 30), and wherein, the transmission network comprises a plurality of sub-networks coupled to the network control elements (figures 1, 4-5). It would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention to combine the teachings of **Hiekali and Bronstein** to have the access node switch controls all of the network specific switching and the transmission network comprises a plurality of sub-networks coupled to the network control elements because it would have an efficient data communications network that has plurality of network switches that can control, manage and reconfigure the multiplexing of sub-network systems.

Hiekali does not explicitly teach the access node switch need not to know a carrier frequency allocated to a terminal coupled to a sub-network. **Hoarty** teaches the access node switch need not to know a carrier frequency allocated to a terminal coupled to a sub-network (figures 1, 3-5, col. 5, lines 44-col. 6, lines 25, col. 6, lines 52-col. 7, lines 56). It would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention was made to combine the teaching of **Hiekali and Hoarty** because it would have an efficient communication system that improves the control structure of the network, reduce overload and bandwidth problems of network operating conditions.

Conclusion

23. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure (Attached herein PTO-892).

24. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thu Ha Nguyen, whose telephone number is (571) 272-3989. The examiner can normally be reached Monday through Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, SPE Hosain T. Alam, can be reached at (571) 272-3978.

Any inquiry of a general nature of relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-9600.

The fax number for art unit 2155 is (703) 746-7239.

Thu Ha Nguyen

October 25, 2004

HOSAIN ALAM
SUPERVISORY PATENT EXAMINER

Notice of References Cited	Application/Control No. 09/341,085	Applicant(s)/Patent Under Reexamination VAN DRIEL, CAREL J.L.	
	Examiner Thu Ha T. Nguyen	Art Unit 2155	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-6,305,020 B1	10-2001	Hoarty et al.	725/95
	B	US-2002/0135698 A1	09-2002	Shinohara, Hiroki	348/473
	C	US-5,539,448 A	07-1996	Verhille et al.	725/93
	D	US-5,229,991 A	07-1993	Turner, Jonathan S.	370/389
	E	US-5,706,111	01-1998	Morales et al.	398/72
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

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	N					
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NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
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	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.